

Title (en)

IMPROVEMENTS TO LIQUID BOILING APPARATUS

Title (de)

VERBESSERUNGEN AN EINEM KOCHENDWASSERGERÄT

Title (fr)

PERFECTIONNEMENTS D'UN APPAREIL UTILISE POUR FAIRE BOUILLIR DU LIQUIDE

Publication

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Application

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Priority

- GB 9600370 W 19960219
- GB 9503256 A 19950220

Abstract (en)

[origin: WO9625869A1] In a liquid heating apparatus (10) such as an electric kettle, a method is provided of controlling operation of an electrical element (11), for example to switch off the power supply to the element on boiling of the liquid. In the method, the temperature of the element (11) is measured at regular predetermined intervals by a sensor (14). A microprocessor (15) is provided linked to the sensor (14) and to a timer (16) and is capable of determining the rate of change of the temperature of the element (11) at any given time after the element (11) has been switched on. The microprocessor (15) can thereby detect when the rate of change in the temperature of the element (11) exceeds a predetermined threshold, which has been calculated according to the power rating of the electrical element, subsequent to a predetermined initial heating period for the element (11). Thus, the microprocessor (15) can control the means (12) for cutting-off or varying the electrical power supply to the element (11) dependent on the difference between said actual rate of change and said predetermined value. In this way, the apparatus can be used to detect an initial boiling of the liquid when the bubbles of vapour which initially form within the liquid congregate over the surface of the element and insulate it from the liquid for a short time causing the temperature of the element at this period of time to increase more rapidly.

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